



UNITED STATES DEPARTMENT OF COMMERCE
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08/996,776

APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
08/996,776	12/23/97	REISER	K PD-960421

MM42/0812

PATENT DOCKET ADMINISTRATION
HUGHES ELECTRONICS
BLDG C01 M S A126
P O BOX 80028
LOS ANGELES CA 90080-0028

EXAMINER

BUT D
ART UNIT PAPER NUMBER

2857

DATE MAILED: 08/12/99

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

☒ Responsive to communication(s) filed on 7/16/99 (CPA)

☐ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 03 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-3, 5-15, and 17-21

Of the above, claim(s) _____ is/are pending in the application.

☐ Claim(s) _____ is/are withdrawn from consideration.

☒ Claim(s) 1-3, 5-15, and 17-21 is/are allowed.

☐ Claim(s) _____ is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of Reference Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

-SEE OFFICE ACTION ON THE FOLLOWING PAGES-

Art Unit: 2857

DETAILED ACTION

1. The request filed on 7/16/1999 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 08/996,776 is acceptable and a CPA has been established. An action on the CPA follows.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 5-14, and 17-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Verly et al. (U.S. Patent No. 5,123,057).

4. With respect to claims 1 and 13, Verly et al. teach a method and apparatus for recognizing an object (see e.g. column 7, lines 38-40) comprising: a signal processing unit with memory (see e.g. column 2, lines 64+); gathering a set of information from a sensor (see e.g. column 6, lines 58+); creating Dempster-Shafer bpa's and combinations of bpa's (see e.g. column 27, lines 12-45); measuring the error (see e.g. column 21, lines 35-47); calculating updates (see e.g. column 46 lines 36+); and refining the probability assignments (see e.g. column 26, lines 1-2).

5. With respect to claims 2 and 14, Verly et al. teach the set of information comprises rules (see e.g. column 28, lines 24-25).

Art Unit: 2857

6. With respect to claims 5-6, Verly et al. teach the set of information comprises object size and/or shape (see e.g. column 8, lines 56-61 and column 9, lines 6-26)
7. With respect to claim 7, Verly et al. teach the set of information comprises heat associated with an object (see e.g. column 1, lines 43-49).
8. With respect to claims 8-11, and 17-20, Verly et al. teach the measuring errors step uses a desired result or known desired result (see e.g. column 10, lines 24-35).
9. With respect to claims 12 and 21, Verly et al. teach the updates of the bpa's are calculated using a gradient-descent rule (see e.g. column 46, lines 36+).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 3 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Verly et al. (U.S. Patent No. 5,123,057) in view of Levy et al. (U.S. Patent No. 5,339,256).
12. With respect to claims 3 and 15, Everly et al. teach all the features of the claimed invention except for the set of information comprises opinions. Levy et al. teach a system for recognizing an object, wherein the set of information used to create Dempster-Shafer basis probability assignments comprises opinions (see e.g. column 3, lines 55+). Verly et al. and Levy et

Art Unit: 2857

al. are combinable because they are from the same field of endeavor, i.e. computer-based expert system with the information confirms the belief. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the opinions/rules base feature of Levy et al. in the expert system of Verly et al. in order to enter opinions that may influence the system's reasoning process. The suggestion would have been made the operation of the system efficiency and accuracy.

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The reference of Sheppard (U.S. Patent No. 5,130,936) discloses a method and apparatus for diagnostic testing including a neural network for determining testing sufficiency.

The reference of Clark (U.S. Patent No. 4,805,225) discloses a pattern recognition method and apparatus.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan Bui whose telephone number is (703) 305-4490. The examiner can normally be reached on Monday-Thursday from 7:30am to 4:30pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff, can be reached on (703) 308-1677.

Any response to this action should be mailed to:

Art Unit: 2857

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-7382 (for informal or draft
communications, please label "PROPOSED" or
"DRAFT")

*Hand-delivered responses should be brought to Crystal Plaza 4,
Arlington. VA., Fourth Floor (Receptionist).*

Any inquiry of a general nature or relating to the status of
this application or proceeding should be directed to the
receptionist whose telephone number is (703) 308-0956.

B Bui

8/5/1999

 8/10/99
**PATRICK ASSOUD
PRIMARY EXAMINER**